What is claimed is:

1. An electromagnetic interference (EMI) shield comprising:

a waveguide body including an array of waveguide cells each having a contiguous inner surface; and

an absorber layer covering at least a portion of each contiguous inner surface and capable of absorbing electromagnetic radiation over a select frequency range.

2. The shield of claim 1, wherein each waveguide cell has a polygonal cross-section.

3. The shield of claim 1, wherein each waveguide cell has a circular cross-section.

4. The shield of claim 1, wherein the polygonal cross-sectional shape is rectangular.

5. The shield of claim 1, wherein the absorber layer covers the entire contiguous inner surface.

6. The shield of claim 1, wherein the absorber layer has a thickness between about 0.025 millimeters to about 0.25 millimeters.

7. The shield of claim 1, wherein the absorber layer has a resistivity between about 200 Ohms/square and about 1200 Ohms/square.

8. The shield of claim 1, wherein the waveguide body is formed of an insulating material.

9. The shield of claim 8, wherein the insulating material is one selected from the group of materials consisting of: plastic, polymer, composite material, ceramic, wood and glass.

10. The shield of claim 1, wherein the select frequency range includes frequencies in the megahertz (MHz) range and the gigahertz (GHz) range.

11. The shield of claim 1, wherein the absorber layer includes an epoxy resin filled with particles having a high magnetic loss over the select frequency range.

12. The shield of claim 1, wherein the body is formed of metal.

13. An electromagnetic interference (EMI) shield, comprising:

an array of waveguide cells each having a contiguous inner surface;

an absorber layer covering at least a portion of each contiguous inner surface, the absorber layer capable of absorbing electromagnetic radiation over a select frequency range.

14. The shield of claim 13, wherein the absorber layer entirely covers each contiguous inner surface.

15. The shield of claim 13, wherein the waveguide cells have a cross-sectional shape that is one of polygonal and circular.

16. The shield of claim 13, wherein the waveguide cells are formed from an insulator.

17. The shield of claim 13, wherein the absorber layer has a thickness between about 0.025 millimeters to about 0.25 millimeters.

18. The shield of claim 13, wherein the select frequency range includes frequencies in the megahertz (MHz) range and the gigahertz (GHz) range.

19. An electromagnetic interference (EMI) shield for a computer, comprising:

a metal chassis having an aperture, the chassis adapted to enclose portions of the computer that generates heat and EMI over a select frequency range; and

an EMI waveguide shield fixed to the chassis and covering the aperture, the EMI waveguide shield including an array of waveguide cells each having a contiguous inner surface, and an absorber layer covering at least a portion of each contiguous inner surface, the absorber layer capable of absorbing the EMI.

20. The EMI shield of claim 13, wherein each waveguide cell has an associated aperture that allows heat to pass therethrough.

21. The EMI shield of claim 19, further comprising the computer.

22. The EMI shield of claim 19, wherein the waveguide shield includes a body formed from an insulator.

23. A method of reducing electromagnetic interference (EMI) from a computer, comprising:

enclosing portions of the computer that generate heat and EMI over a select frequency range with a metal chassis having an interior;

introducing the EMI and heat to an array of waveguide cells fixed to the chassis, each waveguide cell having an aperture leading from the interior and a contiguous inner surface at least partially coated with an absorber layer that absorbs the EMI over the select frequency range; and

absorbing the EMI with the absorber layer to substantially contain the EMI within the interior, while allowing the heat to pass from the interior through each aperture.

24. The method of claim 23, further including covering the entirety of each inner surface with the absorber layer.

25. The method of claim 23, including forming the absorber layer to have a thickness between about 0.025 millimeters and 0.25 millimeters.

26. The method of claim 23, including fixing the waveguide cells to the chassis with screws.